

IR-1051

**MOS-CONTROLLED THYRISTOR  
WITH CURRENT SATURATION CHARACTERISTICS**

**ABSTRACT OF THE DISCLOSURE**

A MOS-controlled thyristor which has current saturation characteristics and does not have any parasitic thyristor structure. In some embodiments, the device has two gate drives and is a four terminal device. In other embodiments, the device requires only a single gate drive and is a three terminal device. The device can be constructed in a cellular geometry. In all embodiments, the device has superior turn-off characteristics and a wider Safe-Operating-Area because the  $N^{++}$  emitter/P base junction is reverse biased during turn-off.

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